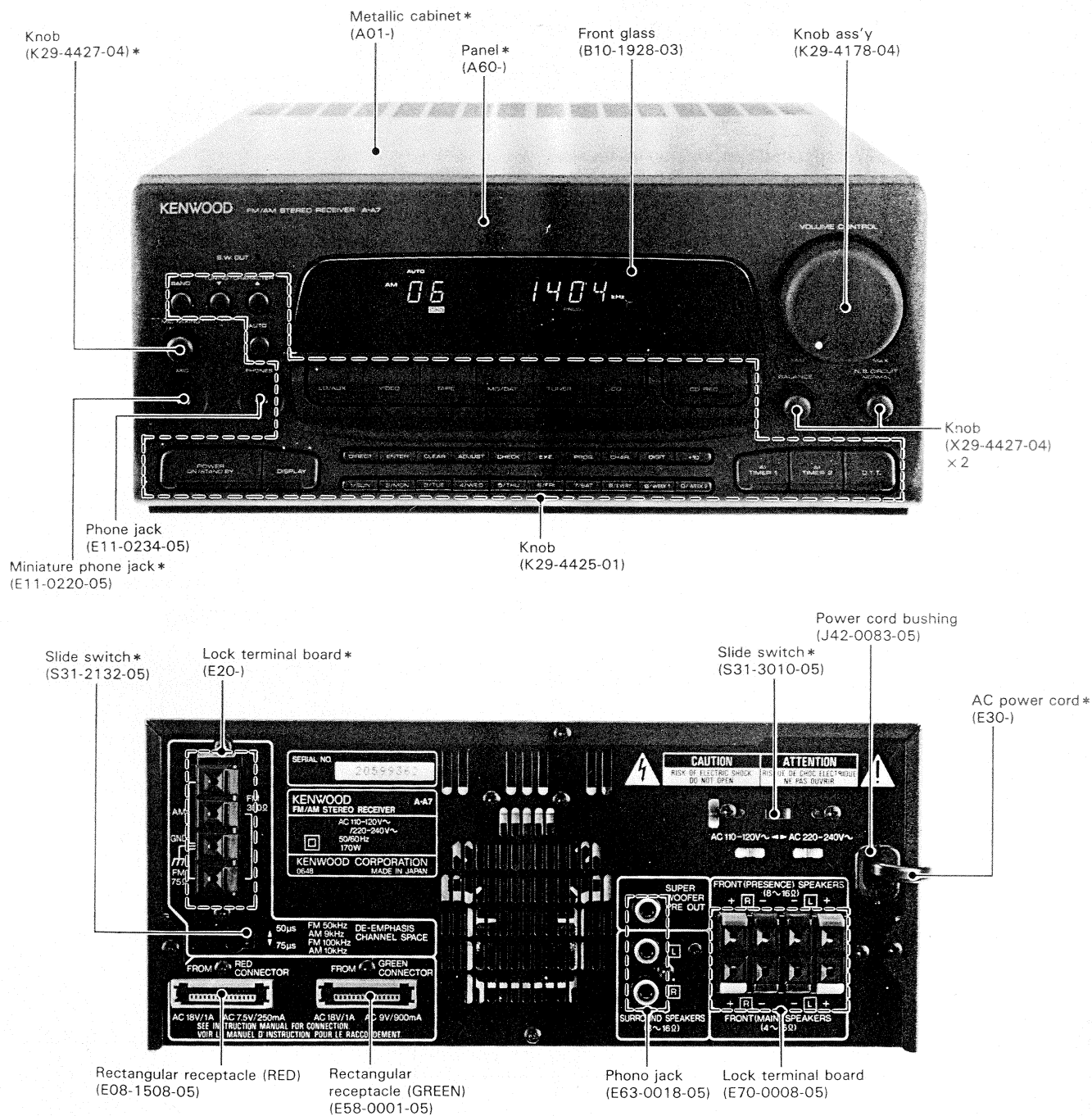


# A-A7/A7L

## SERVICE MANUAL

(COMPACT HIFI SYSTEM UD COMPONENT SYSTEM UD-700/700M)

©1992-7 PRINTED IN JAPAN  
B51-4592-00(MC) 4101



[ A-A7 : K, P, M, X type  
A-A7L: T, E type ]

\* Refer to parts list on page 40.  
Photo is A-A7.

Refer to the SERVICING NOTES on page 2 before repair.

(X14-362X-XX)(A/3):JAPAN MADE  
(X14-364X-XX)(A/3):SINGAPORE MADE

2/3  
(X09-)(A/6)  
CN2

— GND LINE  
— +B LINE  
— -B LINE

2/3  
(X09-)(A/6)  
CN21

2SA1123  
2SA1534A  
2SA954  
2SA992  
2SC1845

2SC1923  
2SC2003  
2SC2878  
2SD1302

RN1203

2SB1531  
2SD2340

2SA1175  
2SC2785

DTC124ES  
2SA1048  
2SA933S  
2SC1740S  
2SC2458

2SC4137

2SD2061

UN4212  
2SA1309A  
2SC3311A

2SC4038

NJM4565D-D

LM7001

TA8409S

PST529C

UPC7815AHF

2SK163  
2SK364

LA1265  
LA3401

PRODUCT-P	MODEL NAME
JAPAN MADE	A-A7
	A-A7L
SINGAPORE MADE	A-A7
	A-A7L

IC201 : CXP501  
or CXP501  
IC202 : CX-7991  
Q201,202 : 2SC4038  
Q203 : 2SA1561  
D201,202 : B30-129  
D211-227,231-234 : HSS104  
or 1SS133  
or 1N4148  
A1 : W02-104  
ED201 : FIP11AV

A-A7(K)(3/3)

PRODUCT-P	MODEL NAME	DESTINATION		UNIT NAME	D213	D214	D215	A
		COUNTRY	ABB					
JAPAN MADE	A-A7	U.S.A CANADA	K P	X14-3620-11	NO	NO	NO	NO
		GENERAL MARKET	M	X14-3620-21	NO	YES	NO	YES
		AUSTRALIA	X	X14-3620-71	YES	YES	NO	NO
	A-A7L	EUROPE ENGLAND	T E	X14-3622-71	YES	YES	YES	NO
SINGAPORE MADE	A-A7	U.S.A CANADA	K P	X14-3640-10	NO	NO	NO	NO
		GENERAL MARKET	M	X14-3640-21	NO	YES	NO	YES
		AUSTRALIA	X	X14-3640-71	YES	YES	NO	NO
	A-A7L	EUROPE ENGLAND	T E	X14-3642-71	YES	YES	YES	NO


C201 : CXP50116-397Q  
or CXP50116-397QA  
C202 : CX-7991

201,202 : 2SC4038(Q,R)  
203 : 2SA1561(Q,R)

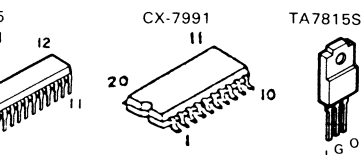
201,202 : B30-1291-05  
211-227,231-234  
: HSS104  
or 1SS133  
or 1N4148

1 : W02-1046-05

D201 : FIP11AM7R

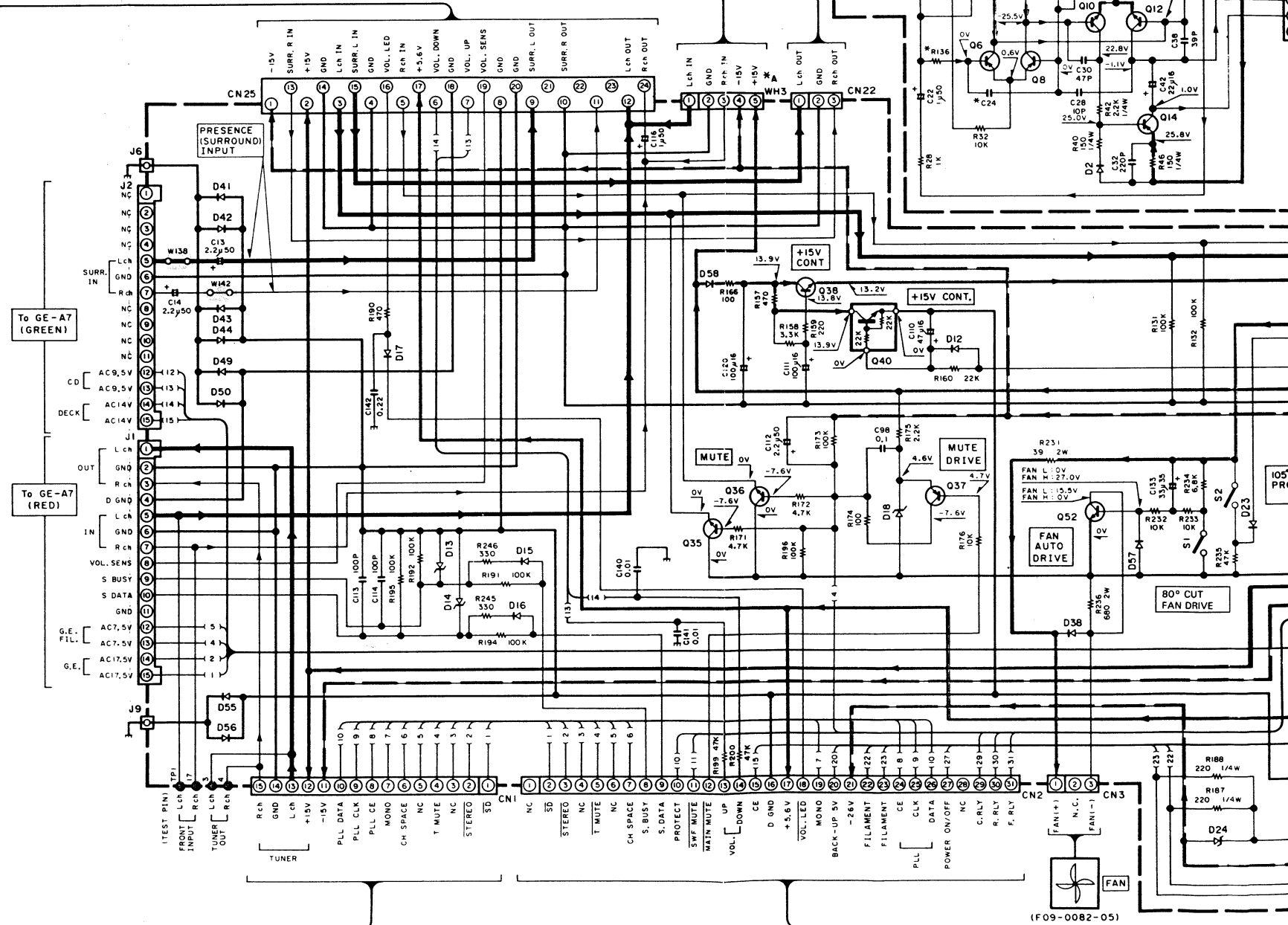
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are to be measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or production units.



Y05-2660-11

**A-A7/A7L**  
**KENWOOD**



2SA1123 2SC1923  
2SA1534A 2SC2003  
2SA954 2SC2878  
2SA992 2SD1302  
2SC1845

RN1203

2SB1531 2SD2340

2SA1175 2SC2785

DTC124ES 2SA1048 2SA933S 2SC1740S 2SC2458

2SC4137

2SD2061

UN4212 2SA1309A 2SC3311A

2SC4038

NJM4565D-D

LM7001

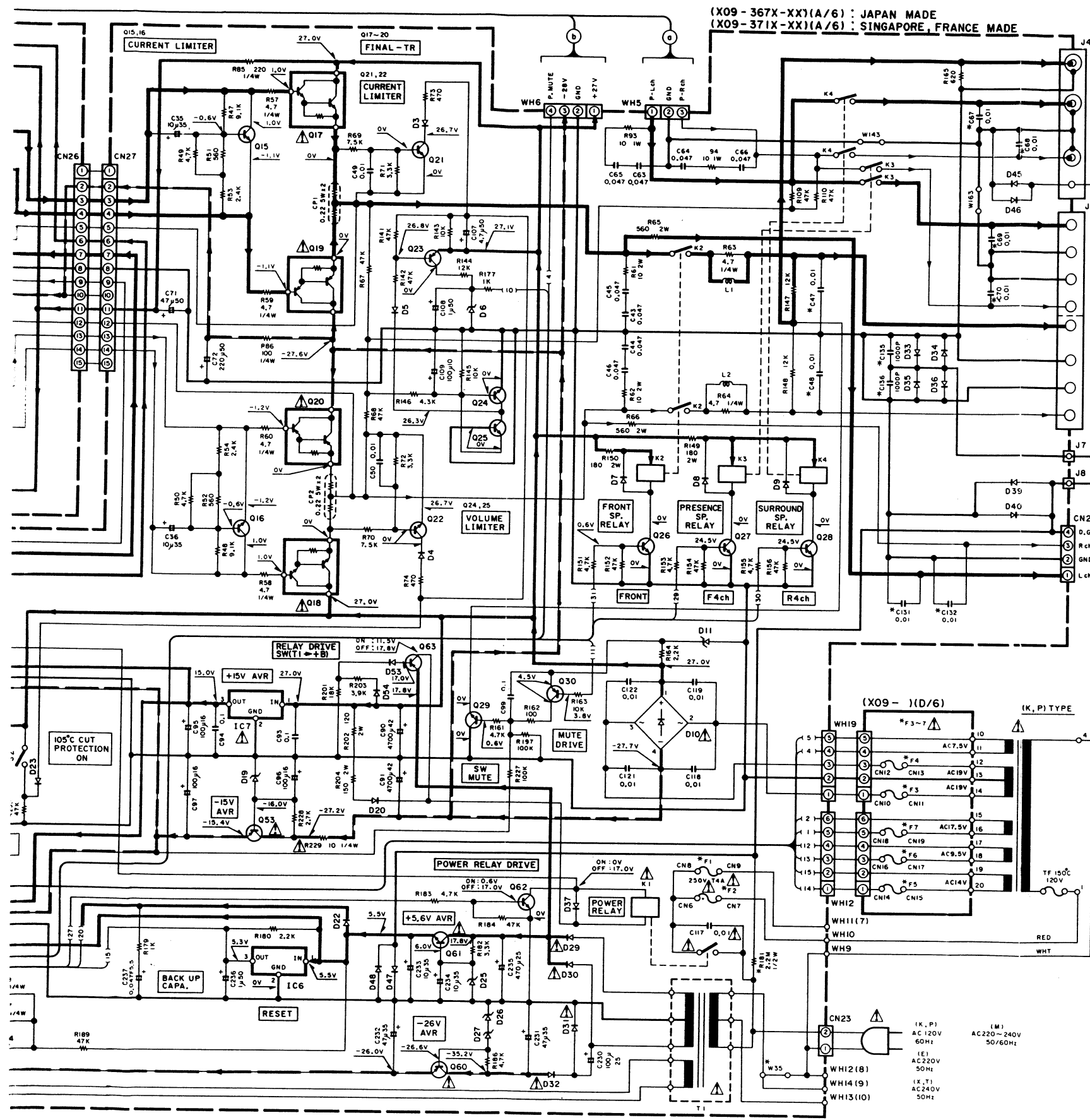
TA8409S

PST529C

UFC/815AHF

2SK10 2SK36





A-A7/A7L

PRODUCT P.	MODEL NAME	DESTINATION	ABB	UNIT NAME	F1	F2	F3,4	F5,7	F6	W35	A	R135	R181	C21	C47	46,67-70
JAPAN MADE	A-A7	U.S.A. CANADA	K P	X09-3670-11	NO	4A 125V	JUMPER	2A 250V	2.5A 250V	YES	NO	10	YES	120P	NO	NO
		GENERAL MARKET	M	X09-3670-21	YES	T2A 250V	T4A 250V	T2A 250V	T2A 250V	NO	YES	10	NO	120P	NO	NO
	A-A7L	AUSTRALIA	X	X09-3670-71	NO	T2A 250V	T4A 250V	T2A 250V	T2A 250V	YES	YES	10	NO	120P	NO	NO
		EUROPE	E	X09-3670-51	NO	T2A 250V	T4A 250V	T2A 250V	T2A 250V	YES	NO	10	NO	120P	NO	NO
SINGAPORE MADE	A-A7	U.S.A. CANADA	K P	X09-3710-10	NO	4A 125V	JUMPER	2A 250V	2.5A 250V	YES	NO	10	YES	120P	NO	NO
		GENERAL MARKET	M	X09-3710-21	YES	T2A 250V	T4A 250V	T2A 250V	T2A 250V	NO	YES	10	NO	120P	NO	NO
	A-A7L	AUSTRALIA	X	X09-3710-71	NO	T2A 250V	T4A 250V	T2A 250V	T2A 250V	YES	YES	10	NO	120P	NO	NO
		EUROPE	E	X09-3710-51	NO	T2A 250V	T4A 250V	T2A 250V	T2A 250V	YES	NO	10	NO	120P	NO	NO

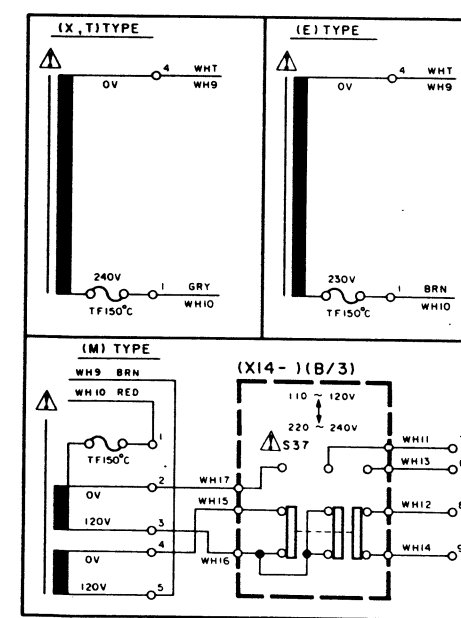
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

MODE	SPEAKER OUTPUT		
	FRONT (MAIN)	PRESENCE	SURROUND (REAR)
SP RELAY Ref No.	K2	K3	K4
USED HEADPHONES	NO	NO	NO
PRESENCE OFF	YES	NO	NO
F (FRONT) 4ch	YES	YES	NO
S (SURROUND) 4ch	YES	NO	YES

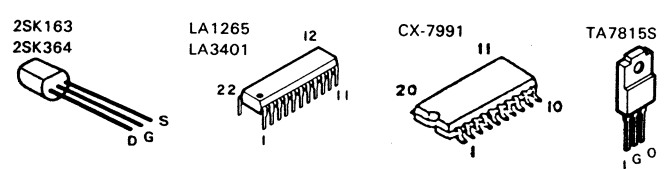
SIGNAL LINE  
 GND LINE  
 +B LINE  
 -B LINE

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

- IC1,4 : NJM4565D-D  
 IC2 : TA8409S  
 IC6 : PST529C  
 IC7 : TA7815S or  $\mu$ PC7815AHF  
 IC9,10 : SI-18752LF  
 Q1,2,9-12,21,22,24,25 : 2SC1845(F,E)  
 Q3,4,29,35,36 : 2SC2878(B)  
 Q5-8,13,14,63 : 2SA992(F,E)  
 Q15,16 : 2SC4137(V,W)  
 Q17,18 : 2SD2340  
 Q19,20 : 2SB1531  
 Q23 : 2SA1123(R,S)  
 Q26-28,52,62 : 2SC2003(L,K)  
 Q30,37 : 2SA933S(Q,R)  
 or 2SA1175(F,E)  
 or 2SA1309A(Q,R)  
 or 2SA1048(Y,GR)  
 Q38 : 2SC1740S(Q,R)  
 or 2SC2785(F,E)  
 or 2SC2458(Y,GR)  
 or 2SC3311A(Q,R)  
 Q40 : DTC124ES or UN4212  
 or RN1203  
 Q53 : 2SA954(L,K)  
 Q60 : 2SA1534A(R,S)  
 Q61 : 2SD2061(E,F,G)



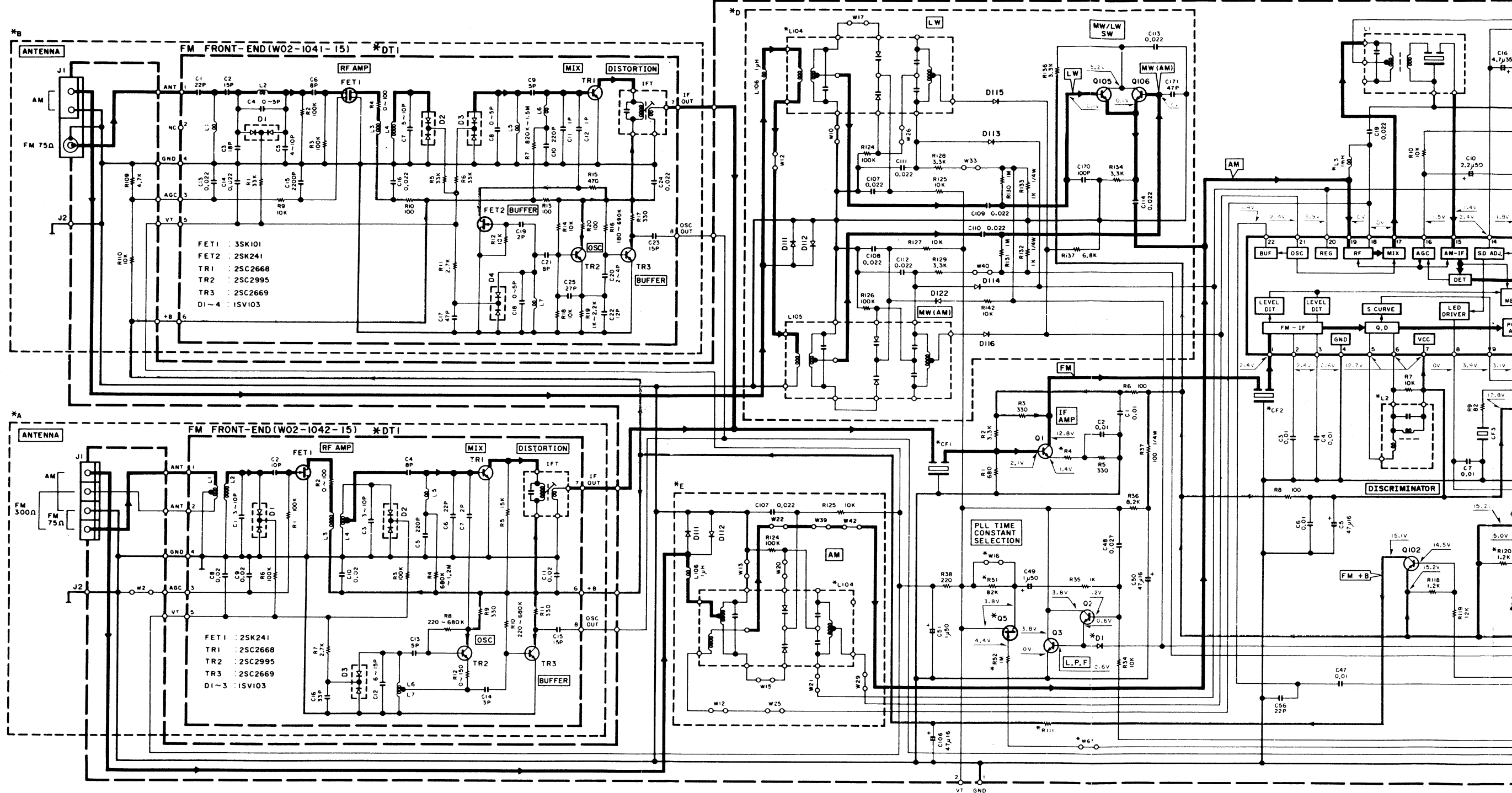
A-A7 (K) (2/3)



Y05-2660-11

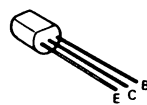
**A-A7/A7L**  
**KENWOOD**

(X14-362X-XX) (C/3) : JAPAN MADE  
(X14-364X-XX) (C/3) : SINGAPORE, FRANCE MADE

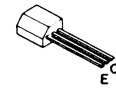


PRODUCT P	MODEL NAME	DESTINATION		UNIT NAME	A	B	C	D	E	R4	R14	R17	R19 20 50-52 54 120 121	R43	R46	R67	R111	C27	C67	Q4 5 103	D1 109 110	CF1 2 1L72	DT1 1W62	S101	L2 (L39-1)	L3 5-7 (L39-1)	L104 (L39-1)	W16 22 62 72 100 104
		COUNTRY	ABB																									
JAPAN MADE	A A7	U.S.A.	K P	X14-3620-11	YES	NO	NO	NO	YES	56	47K	15K	NO	12K	39K	100K	330	0.022	100P	NO	NO	0531	1042	NO	0435	NO	0189	YES
		CANADA	K P	X14-3620-21	YES	NO	NO	NO	YES	56	47K	15K	NO	27K	39K	100K	330	0.015	100P	NO	NO	0531	1042	YES	0494	NO	0189	YES
		GENERAL MARKET	M	X14-3620-71	YES	NO	NO	NO	YES	56	47K	15K	NO	27K	39K	100K	330	0.015	100P	NO	NO	0531	1042	NO	0494	NO	0189	YES
	A A7L	EUROPE	T E	X14-3622-71	NO	YES	NO	YES	NO	22	27K	12K	YES	27K	33K	180K	220	3900P	270P	YES	YES	0536	1041	NO	0494	YES	0195	NO
SINGAPORE MADE	A A7	U.S.A.	K P	X14-3640-10	YES	NO	NO	NO	YES	56	47K	15K	NO	12K	39K	100K	330	0.022	100P	NO	NO	0531	1042	NO	0439	NO	0189	YES
		CANADA	K P	X14-3640-21	YES	NO	NO	NO	YES	56	47K	15K	NO	27K	39K	100K	330	0.015	100P	NO	NO	0531	1042	YES	0494	NO	0189	YES
		GENERAL MARKET	M	X14-3640-71	YES	NO	NO	NO	YES	56	47K	15K	NO	27K	39K	100K	330	0.015	100P	NO	NO	0531	1042	YES	0494	NO	0189	YES
	A A7L	EUROPE	T E	X14-3642-71	NO	YES	NO	YES	NO	22	27K	12K	YES	27K	33K	180K	220	3900P	270P	YES	YES	0536	1041	NO	0494	YES	0195	NO

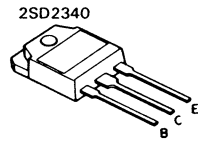
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2SA1534A 2SC2003  
2SA954 2SC2878  
2SA992 2SD1302  
2SC1845



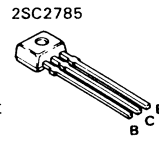
RN1203



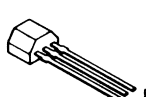
2SB1531 2SD2340



2SA1175 2SC2785



DTC124ES 2SA1048 2SA933S 2SC1740S 2SC2458



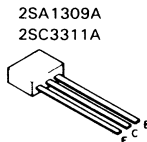
2SC4137



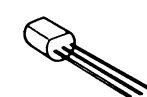
2SD2061



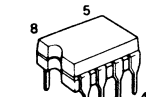
UN4212 2SA1309A 2SC3311A



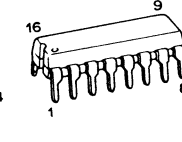
2SC4038



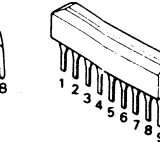
NJM4565D-D



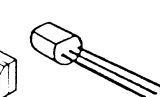
LM7001



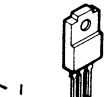
TA8409S



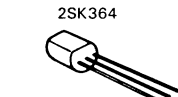
PST529C



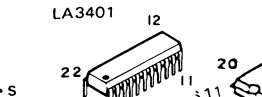
UPC7815AHF



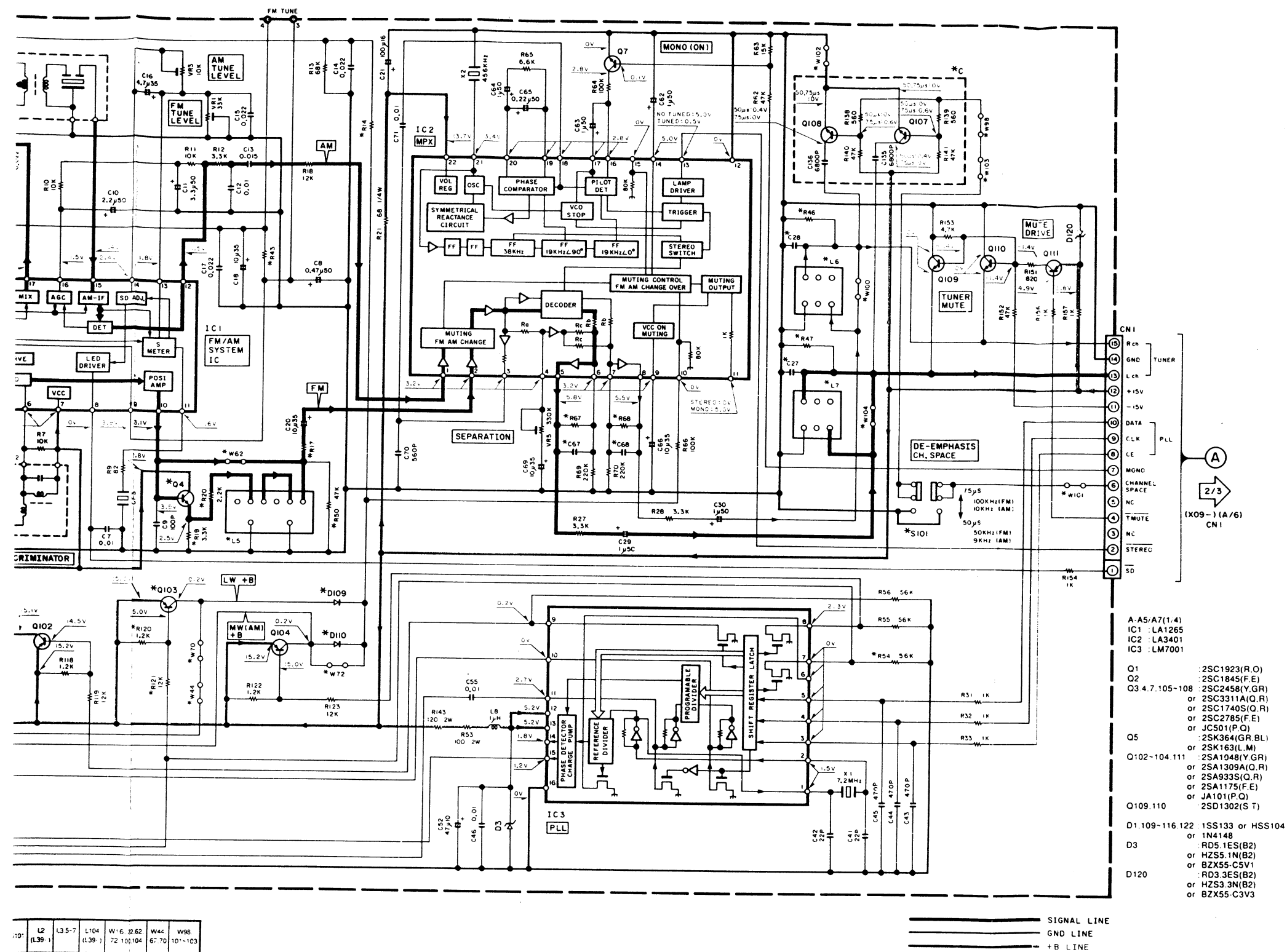
2SK163 2SK364



LA1265 LA3401



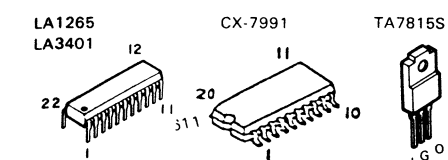
CX



- A-A5/A7(1.4)  
 IC1 : LA1265  
 IC2 : LA3401  
 IC3 : LM7001
- Q1 : 2SC1923(R.O)  
 Q2 : 2SC1845(F.E)  
 Q3 4.7.105-108 : 2SC2458(Y.G.R)  
 or 2SC3311A(Q.R)  
 or 2SC1740S(Q.R)  
 or 2SC2785(F.E)  
 or JC501(P.Q)
- Q5 : 2SK364(G.R.B.L)  
 or 2SK163(L.M)
- Q102-104.111 : 2SA1048(Y.G.R)  
 or 2SA1309A(Q.R)  
 or 2SA933S(Q.R)  
 or 2SA1175(F.E)  
 or JA101(P.Q)  
 or 2SD1302(S.T)
- Q109.110 : 2SD1302(S.T)
- D1.109-116.122 : 1SS133 or HSS104  
 or 1N4148
- D3 : RD5.1ES(B2)  
 or HZ55.1N(B2)  
 or BZX55-C5V1  
 or RD3.3ES(B2)  
 or HZ53.3N(B2)  
 or BZX55-C3V3

A-A7/A7L(K)11/3

NO	L2 (L39-1)	L3.5-7 (L39-1)	L104 (L39-1)	W16.32.62 72 100 104	W44 67 70	W98 101-103
NO	0435	NO	0189	YES	NO	NO
ES	0494	NO	0189	YES	NO	YES
NO	0494	NO	0189	YES	NO	NO
VO	0494	YES	0195	NO	YES	NO
VO	0439	NO	0189	YES	NO	NO
ES	0494	NO	0189	YES	NO	YES
VO	0494	NO	0189	YES	NO	NO
VO	0434	YES	0195	NO	YES	NO



Y05-2660-11

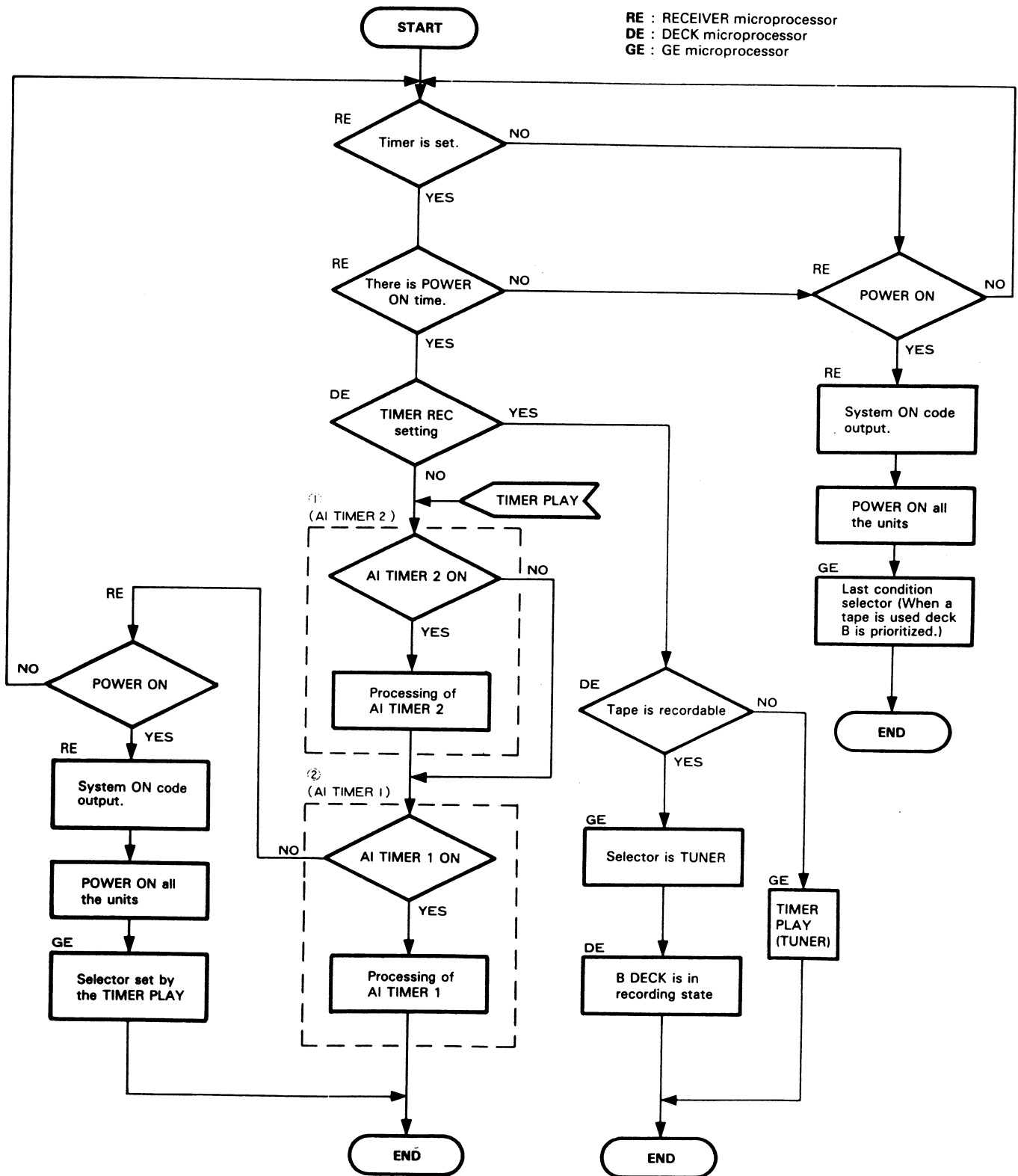
**A-A7/A7L**  
**KENWOOD**



## CIRCUIT DESCRIPTION

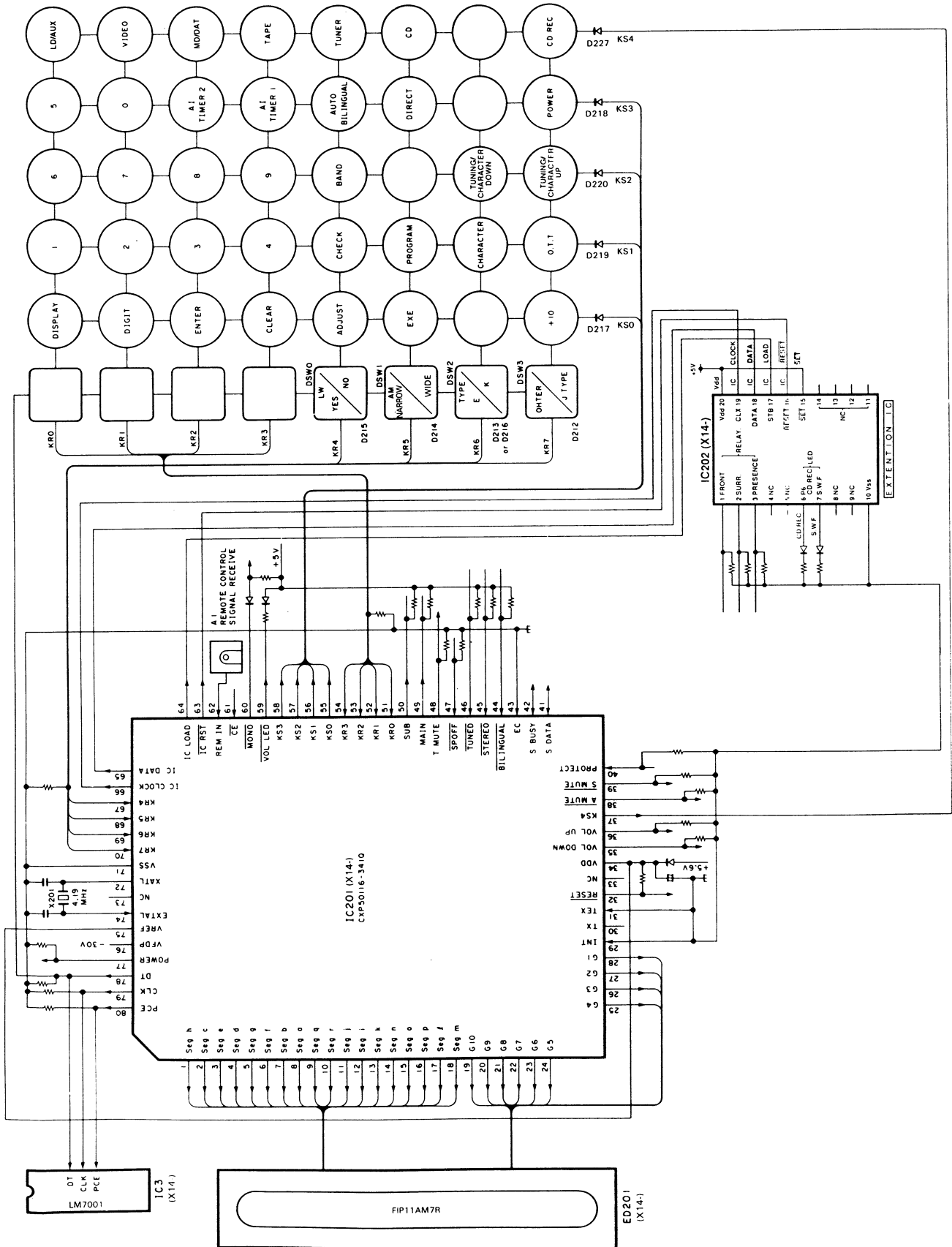
## 3. Operation of UD-700/700M

The flow chart from power on through sound generation



## CIRCUIT DESCRIPTION

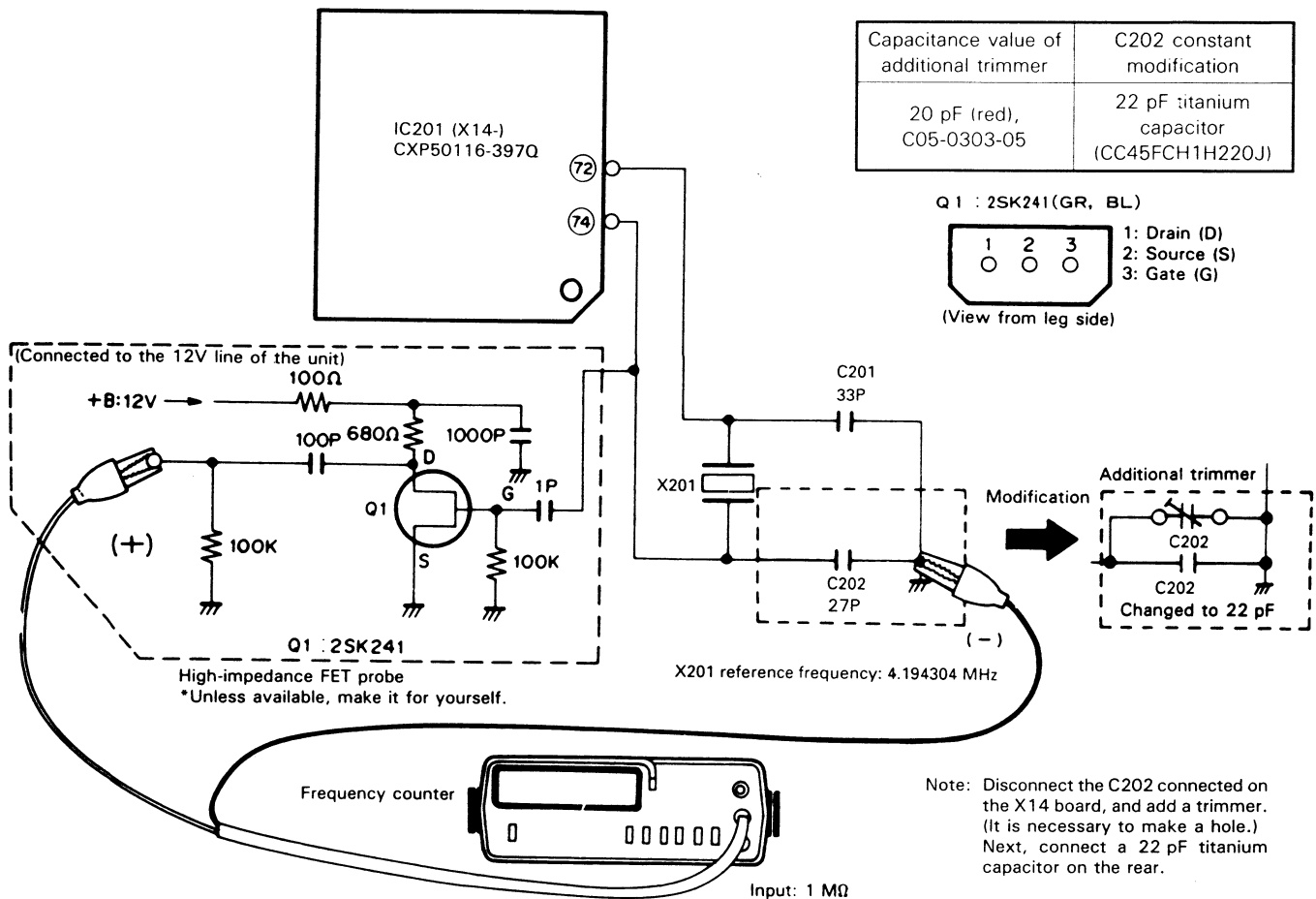
### 6. Block diagram of surrounding microprocessor





## ADJUSTMENT

### 2. Timer accuracy improvement method



The timer accuracy is within  $\pm 40$  seconds for one month as a standard. For improved timer accuracy, perform the following procedure:

- (1) If the timer accuracy is without the standard, replace X201 (L77-1176-05) near the microprocessor IC on a printed board (X14-).
- (2) Even if within the standard, for further improved accuracy, change the constant of C202 in the crystal oscillation circuit of microprocessor IC201 and add a trimmer.

**Adjustment method** (Use a high-impedance buffer to avoid frequency deviation.)

Connect a high-accuracy frequency counter to pin 74 by way of the FET probe shown above, and adjust the frequency fully up to the first digit of the X201 reference frequency 4,194,304 Hz. (Connect the negative (–) side of the frequency counter to the GND side of C202.)

Note (a) As regards the positive (+) side of the frequency counter, arrange as short a distance as possible between pin 74 of IC201 and 1P of the input stage of the FET probe.

Note (b) Perform the trimmer adjustment after energization of around 10 minutes at normal temperature.

#### (3) Monthly error calculation method

For example, when the result of measurement at pin 74 by the frequency counter is  $f_x = 4,194,275$  Hz... (Reference frequency  $f_o = 4,194,304$  [Hz])

$$\text{Monthly error [sec]} = \frac{f_x - f_o}{f_o} \times \text{the number of seconds}$$

$$\text{taken for one month} = \frac{4,194,275 - 4,194,304}{4,194,304}$$

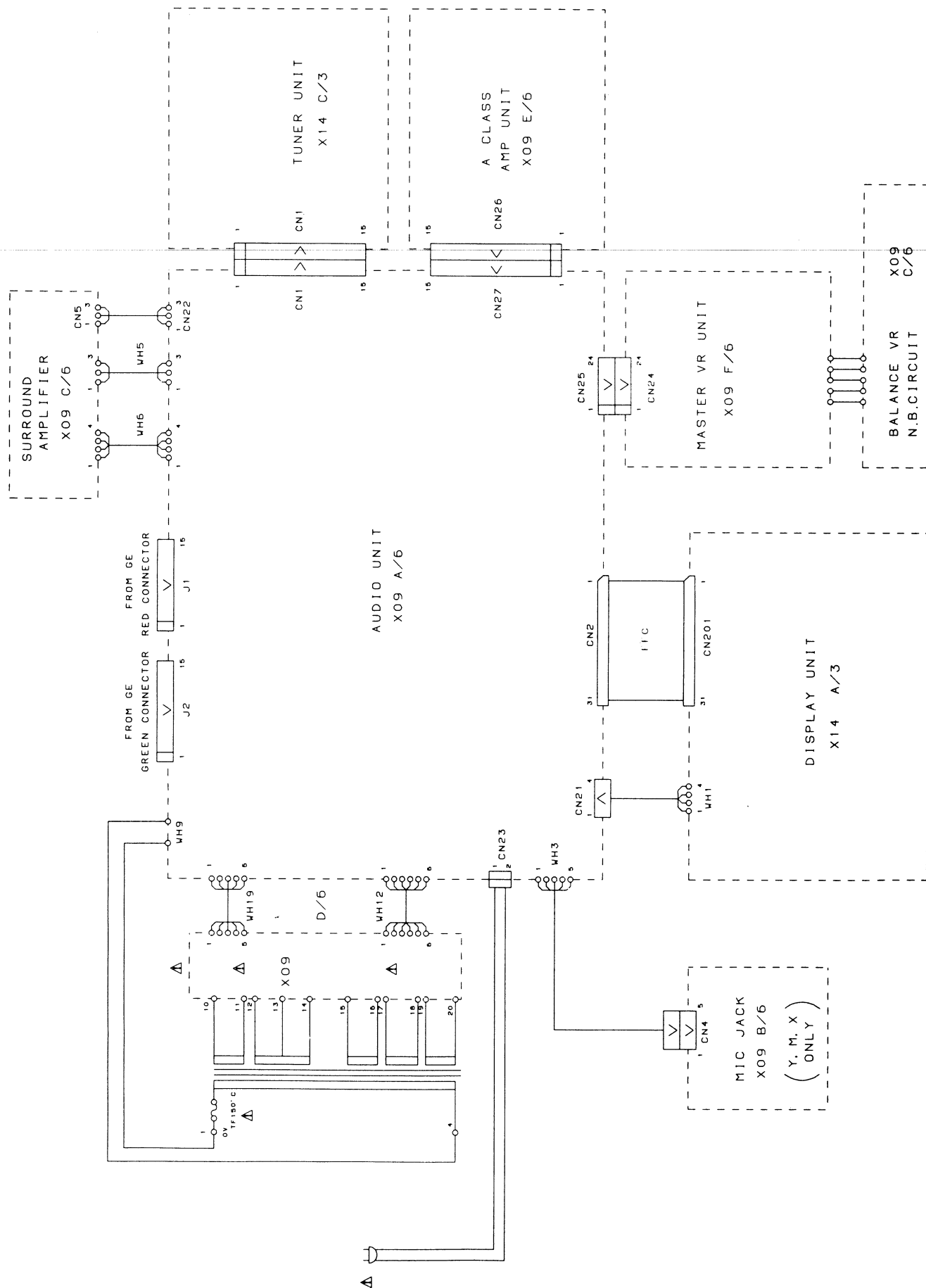
$$\times (60 \times 60 \times 24 \times 30)$$

$$= -17.9 \text{ [sec]}$$

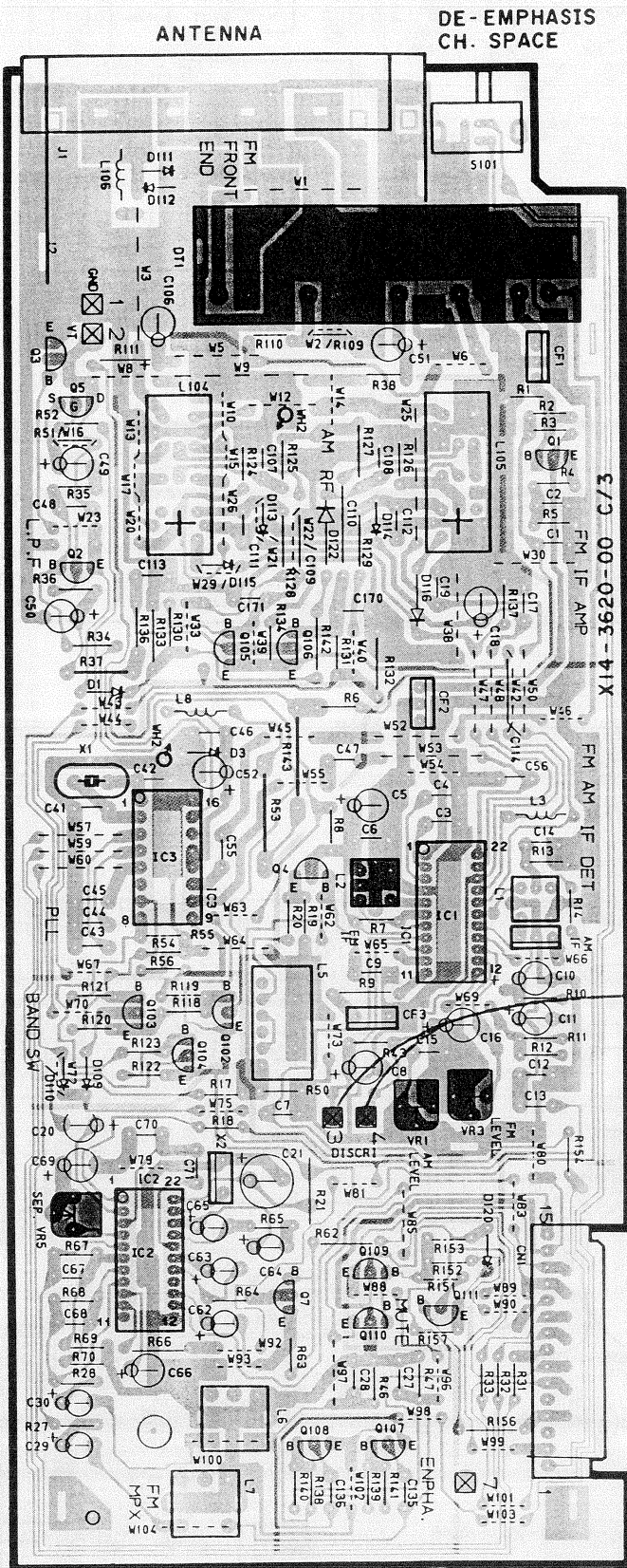
\*A minus value as the monthly error means a loss.

# A-A7/A7L

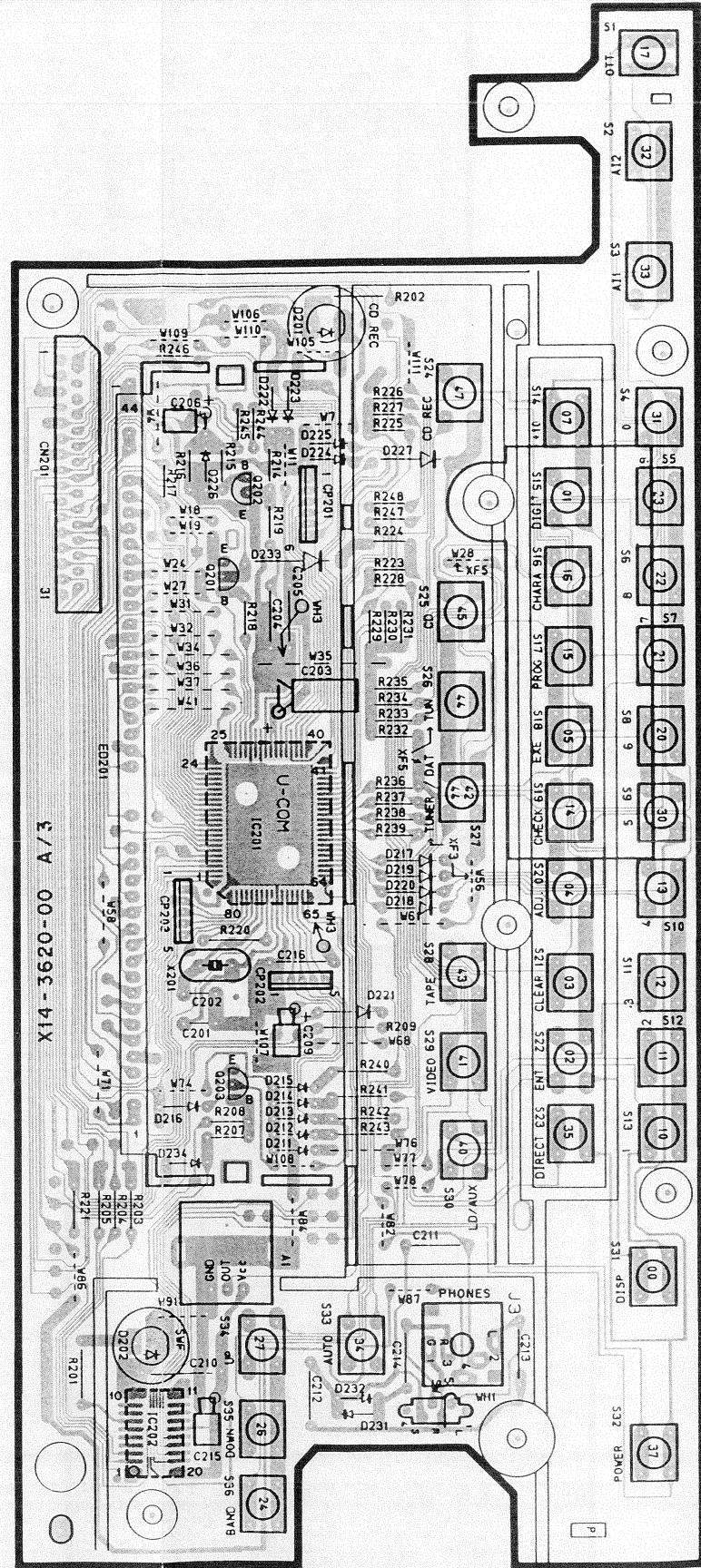
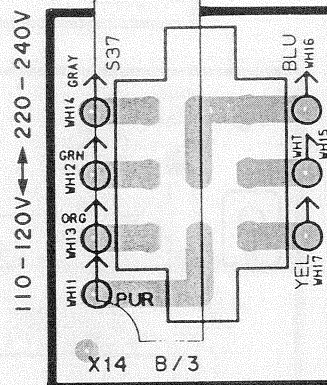
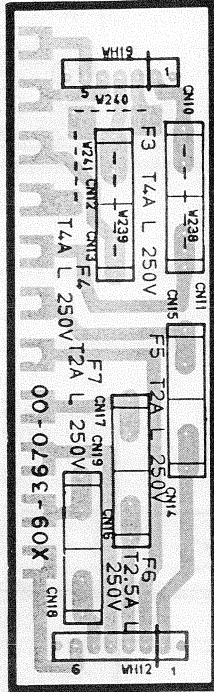
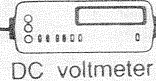
## WIRING DIAGRAM



### PC BOARD (Component side view)



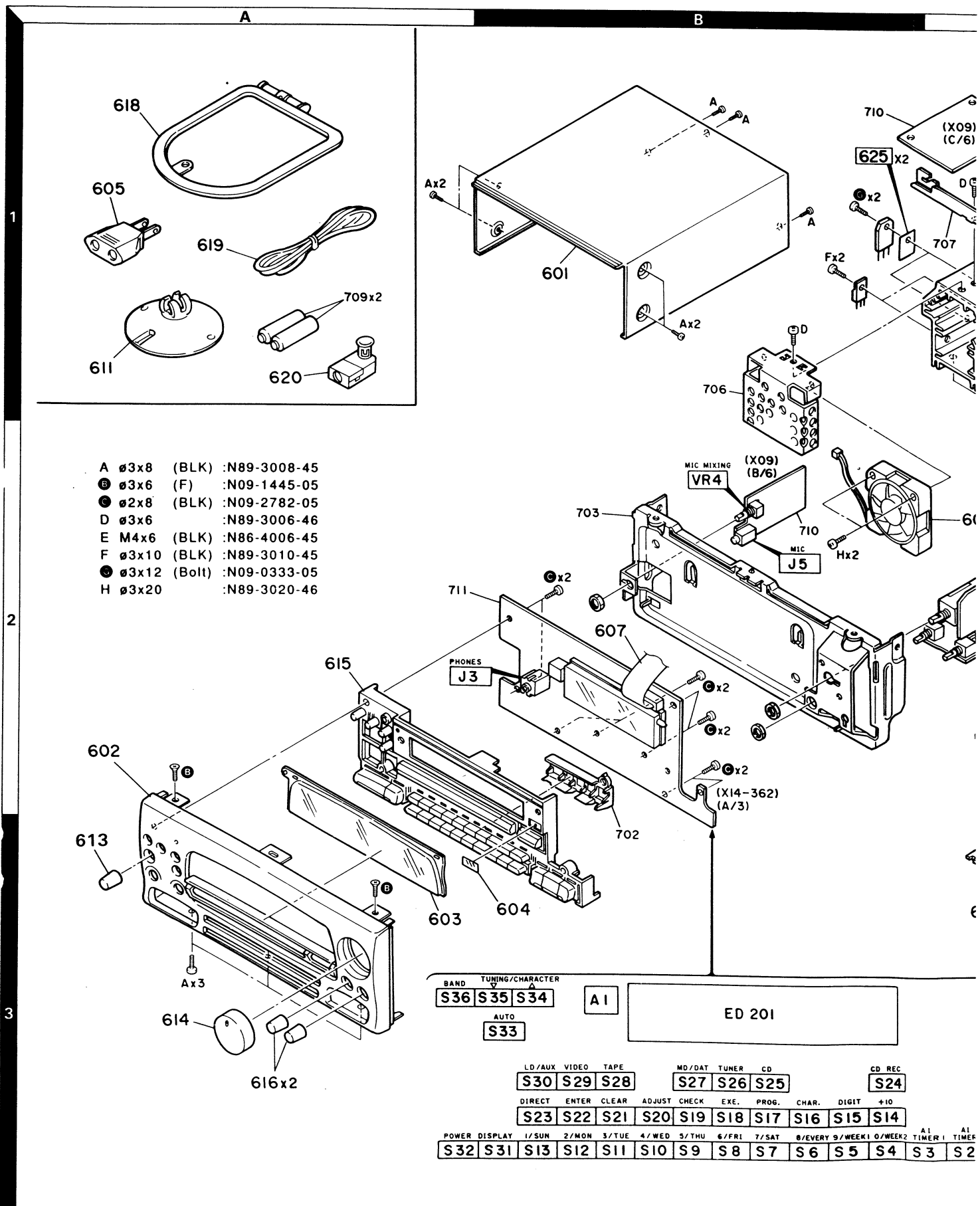
(a) Discriminator : 0V



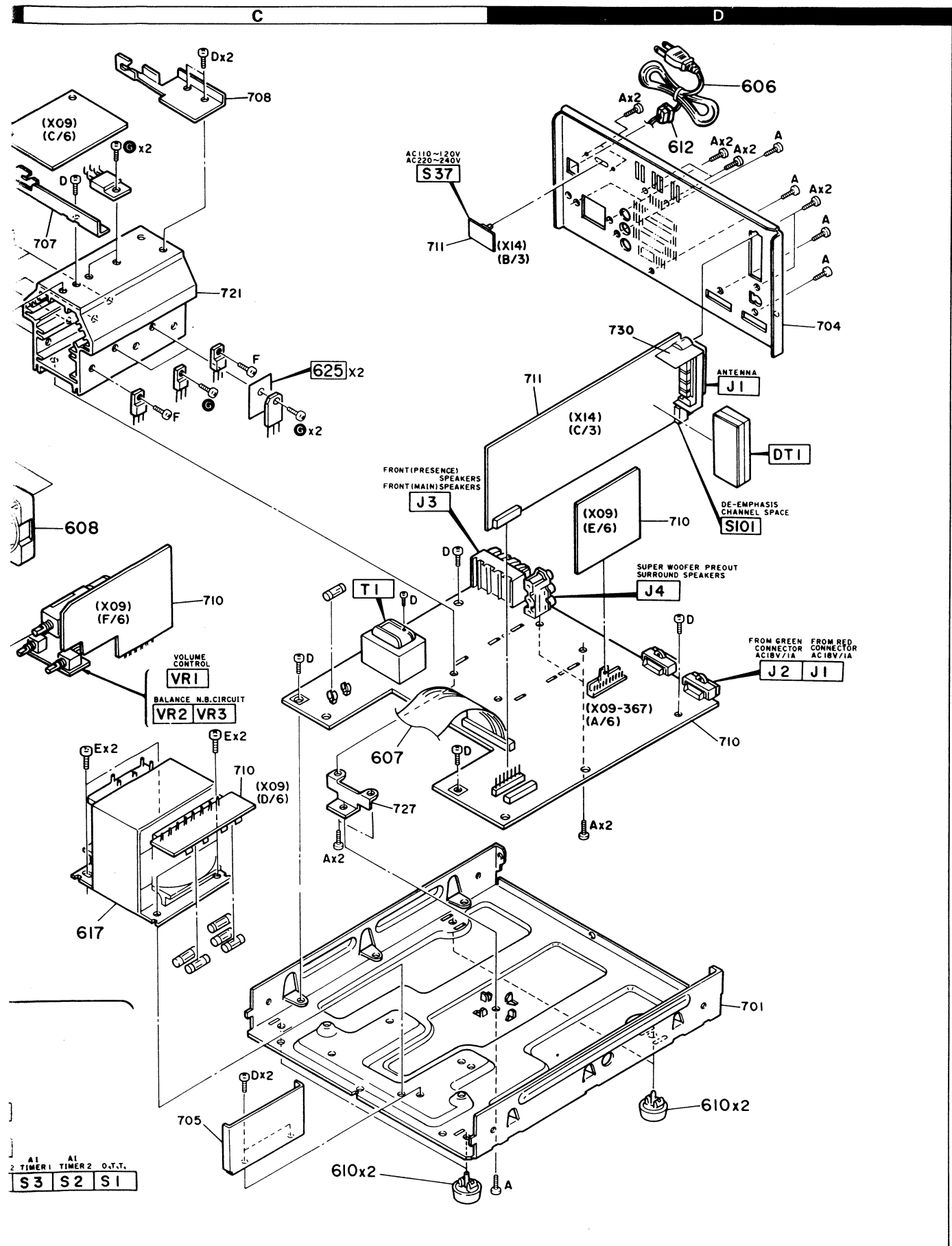
Refer to the schematic diagram for the values of registers and capacitors.











Parts with the exploded numbers larger than 700 are not supplied.



# A-A7/A7L

## PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
<b>A-A7/A7L (JAPAN MADE)</b>						
601	1B	*	A01-2956-01	METALLIC CABINET		
602	2A	*	A60-0254-01	PANEL(A-A7)	MX	
602	2A	*	A60-0255-01	PANEL(A-A7)	KP	
602	2A	*	A60-0256-01	PANEL(A-A7L)	TE	
603	3A	*	B10-1928-03	FRONT GLASS		
604	3B	*	B11-0259-04	SMOKED FILTER		
-			B46-0092-13	WARRANTY CARD	K	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-13	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B59-0177-00	SUB-INSTRUCTION MANUAL	KPMX	
-		*	B60-0898-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0899-00	INSTRUCTION MANUAL(FRENCH)	PE	
-		*	B60-0900-00	INSTRUCTION MANUAL(GERMAN)	E	
-		*	B60-0901-00	INSTRUCTION MANUAL(DUTCH)	E	
-		*	B60-0902-00	INSTRUCTION MANUAL(ITALIAN)	E	
-		*	B60-0903-00	INSTRUCTION MANUAL(CHINESE)	M	
-		*	B60-0904-00	INSTRUCTION MANUAL(SPANISH)	ME	
-		*	B60-0986-00	INSTRUCTION MANUAL(ARABIC)	M	
Δ 605	1A		E03-0115-05	AC PLUG ADAPTER	M	
Δ 606	1D		E30-2592-15	AC POWER CORD	ME	
Δ 606	1D		E30-2593-15	AC POWER CORD	T	
Δ 606	1D		E30-2594-15	AC POWER CORD	X	
Δ 606	1D		E30-2650-05	AC POWER CORD	KP	
607	2B, 2C	*	E35-0404-05	WIRING HARNESS		
608	2C	*	F09-0082-05	FAN		
-			H13-0039-04	CARTON BOARD		
-			H10-5300-12	POLYSTYRENE FOAMED FIXTURE(L)		
-			H10-5301-02	POLYSTYRENE FOAMED FIXTURE(R)		
-		*	H10-5391-03	POLYSTYRENE FOAMED FIXTURE(F)	KPMXE	
-			H25-0397-04	PROTECTION BAG		
-			H25-0632-24	PROTECTION BAG	KPMXE	
-			H25-0644-04	PROTECTION BAG (0632 PRINTED)	T	
-			H25-0659-04	PROTECTION BAG (0397 PRINTED)	T	
-		*	H50-0354-04	ITEM CARTON CASE(A-A7)	KPMX	
-		*	H50-0355-04	ITEM CARTON CASE(A-A7L)	TE	
610	3D		J02-0370-05	FOOT		
611	1A		J19-2815-04	ANTENNA HOLDER		
Δ 612	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
613	3A	*	K29-4427-04	KNOB (MIC)	MX	
614	3A		K29-4178-04	KNOB ASSY(VOLUME CONTROL)		
615	2A	*	K29-4425-01	KNOB(POWER, DISPLAY etc.)		
616	3A	*	K29-4427-04	KNOB(BALANCE, N.B. CIRCUIT)		
Δ 617	3C	*	L07-0541-15	POWER TRANSFORMER	KP	
Δ 617	3C	*	L07-0542-15	POWER TRANSFORMER	M	
Δ 617	3C	*	L07-0543-15	POWER TRANSFORMER	XT	
Δ 617	3C	*	L07-0544-15	POWER TRANSFORMER	E	
A	1B		N89-3008-45	BINDING HEAD TAPTITE SCREW		

L:Scandinavia

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
B	3A		N09-1445-05	SET SCREW (M3X8)		
C	2B		N09-2782-05	TAPTITE SCREW (2.6X8)		
D	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
E	2C		N86-4006-45	BINDING HEAD TAPTITE SCREW		
F	1C		N89-3010-45	BINDING HEAD TAPTITE SCREW		
G	1C		N09-0333-05	TAPPING SCREW (3X12)		
H	2B		N89-3020-46	BINDING HEAD TAPTITE SCREW		
618	1A		T90-0173-05	LOOP ANTENNA(AM)		
619	1A		T90-0176-05	T TYPE ANTENNA(FM)		
620	1A		T90-0185-05	ANTENNA ADAPTOR	TE	
<b>A-A7/A7L (SINGAPORE MADE)</b>						
601	1B	*	A01-2966-01	METALLIC CABINET		S
602	2A	*	A60-0254-01	PANEL(A-A7)	MX	
602	2A	*	A60-0255-01	PANEL(A-A7)	KP	
602	2A	*	A60-0256-01	PANEL(A-A7L)	TE	
603	3A	*	B10-1928-03	FRONT GLASS		
604	3B	*	B11-0259-04	SMOKED FILTER		
-			B46-0092-13	WARRANTY CARD	K	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-13	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B59-0177-00	SUB-INSTRUCTION MANUAL	KPMX	
-		*	B60-0898-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0899-00	INSTRUCTION MANUAL(FRENCH)	PE	
-		*	B60-0900-00	INSTRUCTION MANUAL(GERMAN)	E	
-		*	B60-0901-00	INSTRUCTION MANUAL(DUTCH)	E	
-		*	B60-0902-00	INSTRUCTION MANUAL(ITALIAN)	E	
-		*	B60-0903-00	INSTRUCTION MANUAL(CHINESE)	ME	
-		*	B60-0904-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B60-0986-00	INSTRUCTION MANUAL(ARABIC)	M	
△ 605	1A		E03-0115-05	AC PLUG ADAPTER	M	
△ 606	1D		E30-2592-15	AC POWER CORD	ME	
△ 606	1D		E30-2593-15	AC POWER CORD	T	
△ 606	1D		E30-2594-15	AC POWER CORD	X	
△ 606	1D		E30-2650-05	AC POWER CORD	KP	
607	2B, 2C	*	E35-0404-05	WIRING HARNESS		
608	2C	*	F09-0082-05	FAN		
-		*	H10-5324-02	POLYSTYRENE FOAMED FIXTURE(L)		S
-		*	H10-5325-02	POLYSTYRENE FOAMED FIXTURE(R)		S
-		*	H10-5390-03	POLYSTYRENE FOAMED FIXTURE(F)		S
-			H13-0086-04	CARTON BOARD		
-			H25-0397-04	PROTECTION BAG	KPMXE	
-			H25-0632-24	PROTECTION BAG	KPMXE	
-			H25-0644-04	PROTECTION BAG (0632 PRINTED)	T	
-			H25-0659-04	PROTECTION BAG (0397 PRINTED)	T	
-		*	H50-0358-04	ITEM CARTON CASE(A-A7)	KPX	S
-		*	H50-0359-04	ITEM CARTON CASE(A-A7)	M	S
-		*	H50-0417-14	ITEM CARTON CASE(A-A7L)	TE	S
610	3D		J02-0370-05	FOOT		

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B	3A		N09-1445-05	SET SCREW (M3X8)		
C	2B		N09-2782-05	TAPTITE SCREW (2.6X8)		
D	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
E	2C		N86-4006-45	BINDING HEAD TAPTITE SCREW		
F	1C		N89-3010-45	BINDING HEAD TAPTITE SCREW		
G	1C		N09-0333-05	TAPPING SCREW (3X12)		
H	2B		N89-3020-46	BINDING HEAD TAPTITE SCREW		
618	1A		T90-0173-05	LOOP ANTENNA(AM)		
619	1A		T90-0176-05	T TYPE ANTENNA(FM)		
620	1A		T90-0185-05	ANTENNA ADAPTOR	TE	
<b>A-A7/A7L (SINGAPORE MADE)</b>						
601	1B	*	A01-2966-01	METALLIC CABINET		S
602	2A	*	A60-0254-01	PANEL(A-A7)	MX	
602	2A	*	A60-0255-01	PANEL(A-A7)	KP	
602	2A	*	A60-0256-01	PANEL(A-A7L)	TE	
603	3A	*	B10-1928-03	FRONT GLASS		
604	3B	*	B11-0259-04	SMOKED FILTER		
-			B46-0092-13	WARRANTY CARD	K	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-13	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B59-0177-00	SUB-INSTRUCTION MANUAL	KPMX	
-		*	B60-0898-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0899-00	INSTRUCTION MANUAL(FRENCH)	PE	
-		*	B60-0900-00	INSTRUCTION MANUAL(GERMAN)	E	
-		*	B60-0901-00	INSTRUCTION MANUAL(DUTCH)	E	
-		*	B60-0902-00	INSTRUCTION MANUAL(ITALIAN)	E	
-		*	B60-0903-00	INSTRUCTION MANUAL(CHINESE)	ME	
-		*	B60-0904-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B60-0986-00	INSTRUCTION MANUAL(ARABIC)	M	
△ 605	1A		E03-0115-05	AC PLUG ADAPTER	M	
△ 606	1D		E30-2592-15	AC POWER CORD	ME	
△ 606	1D		E30-2593-15	AC POWER CORD	T	
△ 606	1D		E30-2594-15	AC POWER CORD	X	
△ 606	1D		E30-2650-05	AC POWER CORD	KP	
607	2B, 2C	*	E35-0404-05	WIRING HARNESS		
608	2C	*	F09-0082-05	FAN		
-		*	H10-5324-02	POLYSTYRENE FOAMED FIXTURE(L)		S
-		*	H10-5325-02	POLYSTYRENE FOAMED FIXTURE(R)		S
-		*	H10-5390-03	POLYSTYRENE FOAMED FIXTURE(F)		S
-			H13-0086-04	CARTON BOARD		
-			H25-0397-04	PROTECTION BAG	KPMXE	
-			H25-0632-24	PROTECTION BAG	KPMXE	
-			H25-0644-04	PROTECTION BAG (0632 PRINTED)	T	
-			H25-0659-04	PROTECTION BAG (0397 PRINTED)	T	
-		*	H50-0358-04	ITEM CARTON CASE(A-A7)	KPX	S
-		*	H50-0359-04	ITEM CARTON CASE(A-A7)	M	S
-		*	H50-0417-14	ITEM CARTON CASE(A-A7L)	TE	S
610	3D		J02-0370-05	FOOT		

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△ 611	1A		J19-2815-04	ANTENNA HOLDER		
612	1D		J42-0083-05	POWER CORD BUSHING		
			J61-0307-05	WIRE BAND		
613	3A	*	K29-4427-04	KNOB (MIC)	MX	
614	3A		K29-4178-04	KNOB ASSY(VOLUME CONTROL)		
615	2A	*	K29-4425-01	KNOB(POWER,DISPLAY etc.)		
616	3A	*	K29-4427-04	KNOB(BALANCE,N.B. CIRCUIT)		
△ 617	3C	*	L07-0541-15	POWER TRANSFORMER	KP	
△ 617	3C	*	L07-0542-15	POWER TRANSFORMER	M	
△ 617	3C	*	L07-0543-15	POWER TRANSFORMER	XT	
△ 617	3C	*	L07-0544-15	POWER TRANSFORMER	E	
A	1B		N89-3008-45	BINDING HEAD TAPTITE SCREW		
B	3A		N09-1445-05	SET SCREW (M3X8)		
C	2B		N09-2782-05	TAPTITE SCREW (2.6X8)		
D	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
E	2C		N86-4006-45	BINDING HEAD TAPTITE SCREW		
F	1C		N89-3010-45	BINDING HEAD TAPTITE SCREW		
G	1C		N09-0333-05	TAPPING SCREW (3X12)		
H	2B		N89-3020-46	BINDING HEAD TAPTITE SCREW		
618	1A		T90-0174-05	LOOP ANTENNA(AM)		S
619	1A		T90-0175-05	T TYPE ANTENNA(FM)		
620	1A		T90-0185-05	ANTENNA ADAPTOR	TE	
<b>AUDIO UNIT X09-367: JAPAN MADE X09-371: SINGAPORE MADE</b>						
C1 ,2			CK45FB1H471K	CERAMIC 470PF K		
C5 ,6			CC45FSL1H151J	CERAMIC 150PF J		
C7 ,8			CF92FV1H222J	MF 2200PF J		
C9 ,10			C90-3225-05	ELECTRO 10UF 16WV		
C11 ,12			CF92FV1H154J	MF 0.15UF J		
C13 ,14			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C15 ,16			C90-3225-05	ELECTRO 10UF 16WV		
C21 ,22			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C23 ,24			CC45FSL1H121J	CERAMIC 120PF J	KPMXT	
C23 ,24			CC45FSL1H391J	CERAMIC 390PF J	E	
C25 ,26			CC45FSL1H121J	CERAMIC 120PF J		
C27 ,28			CC45FSL1H100D	CERAMIC 10PF D		
C29 ,30			CC45FSL1H470J	CERAMIC 47PF J		
C31 ,32			CC45FSL1H221J	CERAMIC 220PF J		
C33 ,34			C90-1845-05	ELECTRO 100UF 6.3WV		
C35 ,36			CE04KW1V100M	ELECTRO 10UF 35WV		
C37 ,38			CC45FSL1H390J	CERAMIC 39PF J		
C41 ,42			CE04KW1C220M	ELECTRO 22UF 16WV		
C43 ,46			CF92FV1H473J	MF 0.047UF J		
C47 ,48			CF92FV1H103J	MF 0.010UF J	E	
C49 ,50			CF92FV1H103J	MF 0.010UF J		
C51 ,52			CF92FV1H823J	MF 0.082UF J		
C53 ,54			CE04KW1C100M	ELECTRO 10UF 16WV	MX	
C55 ,56			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C57 ,58			CE04KW1C470M	ELECTRO 47UF 16WV		
C59 ,60			CK45FB1H471K	CERAMIC 470PF K		
C61 ,62			CC45FSL1H101J	CERAMIC 100PF J		
C63 ,66			CF92FV1H473J	MF 0.047UF J		
C67 ,70			CF92FV1H103J	MF 0.010UF J	E	
C71			CE04KW1H470M	ELECTRO 47UF 50WV		
C72			CE04KW1H221M	ELECTRO 220UF 50WV		

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C73 -78 C81 C82 C83 C84			CF92FV1H104J CF92FV1H102J CE04KW1C100M CC45FSL1H221J CF92FV1H473J	MF 0.10UF J MF 1000PF J ELECTRØ 10UF 16WV CERAMIC 220PF J MF 0.047UF J	MX MX MX MX	
C86 C90 ,91 C93 ,94 C95 -97 C98 ,99		*	CF92FV1H472J C90-1966-05 CF92FV1H104J CE04KW1C101M CF92FV1H104J	MF 4700PF J ELECTRØ 4700UF 42WV MF 0.10UF J ELECTRØ 100UF 16WV MF 0.10UF J	MX	
C101,102 C103-106 C107 C108 C109			CC45FSL1H121J CF92FV1H274J CE04KW1H4R7M CE04KW1H010M CE04KW1A101M	CERAMIC 120PF J MF 0.27UF J ELECTRØ 4.7UF 50WV ELECTRØ 1.0UF 50WV ELECTRØ 100UF 10WV		
C110 C111 C112 C113,114 C115			CE04KW1C470M CE04KW1C101M CE04KW1H2R2M CC45FSL1H101J C90-3253-05	ELECTRØ 47UF 16WV ELECTRØ 100UF 16WV ELECTRØ 2.2UF 50WV CERAMIC 100PF J ELECTRØ 1UF 50WV		
C116 △ C117 C118,119 C120 C121,122			CE04KW1H010M C91-1439-05 CK45FF1H103Z CE04KW1C101M CK45FF1H103Z	ELECTRØ 1.0UF 50WV FILM 0.01UF 250VAC CERAMIC 0.010UF Z ELECTRØ 100UF 16WV CERAMIC 0.010UF Z		
C131,132 C133 C135,136 C138,139 C140,141			CC45FSL1H121J CE04KW1V330M CF92FV1H102J CF92FV1H104J C91-0769-05	CERAMIC 120PF J ELECTRØ 33UF 35WV MF 1000PF J MF 0.10UF J CERAMIC 0.01UF K	E E MX	
C142 C230 C231,232 C233,234 C235			CF92FV1H104J CE04KW1E101M CE04KW1V470M CE04KW1V100M CE04KW1E471M	MF 0.10UF J ELECTRØ 100UF 25WV ELECTRØ 47UF 35WV ELECTRØ 10UF 35WV ELECTRØ 470UF 25WV		
C236 C237 C238 C243,244 C245,246		*	CE04KW1H010M C90-1827-05 C90-3239-05 C90-3253-05 C90-3237-05	ELECTRØ 1.0UF 50WV BACKUP 0.047F 5.5WV ELECTRØ 100UF 25WV ELECTRØ 1UF 50WV ELECTRØ 47UF 25WV		
J1 J2 J3 J4 J5	2D 2D 2C 2D 2B		E08-1508-05 E58-0001-05 E70-0008-05 E63-0018-05 E11-0220-05	RECTANGULAR RECEPTACLE(RED) RECTANGULAR RECEPTACLE(GREEN) LOCK TERMINAL BOARD(F.SPEAKERS) PHONE JACK(S.W.,SURROUND SP.) MINIATURE PHONE JACK(MIC)	MX	
△ 625 △ F1 △ F2 △ F2 △ F3 ,4 △ F5 △ F5 △ F6 △ F6 △ F7	1B,1C		F20-1284-05 F05-4025-05 F05-4028-05 F06-2021-05 F05-4025-05 F04-2025-05 F06-2021-05 F06-2021-05 F06-2525-05 F04-2025-05	INSULATING BOARD FUSE (SEMKØ) (250V T4A) FUSE (UL) (125V 4A) FUSE (SEMKØ) (250V T2A) FUSE (SEMKØ) (250V T4A) FUSE (UL) (250V 2A) FUSE (SEMKØ) (250V T2A) FUSE (SEMKØ) (250V T2A) FUSE (UL) (250V 2.5A) FUSE (UL) (250V 2A)	M KP MXTE MXTE KP MXTE MXTE KP KP	

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△ F7			F06-2021-05	FUSE (SEMKO) (250V T2A)	MXTE	
CN6 ,7			J13-0075-05	FUSE CLIP	KPXTE	
CN8 ,9			J13-0075-05	FUSE CLIP	M	
CN10-19			J13-0075-05	FUSE CLIP		
L1 -4			L39-0085-05	PHASE COMPENSATION COIL		
△ T1	2C		L07-0332-05	POWER TRANSFORMER	KP	
△ T1	2C		L07-0333-05	POWER TRANSFORMER	XT	
△ T1	2C		L07-0334-05	POWER TRANSFORMER	E	
△ T1	2C		L07-0335-05	POWER TRANSFORMER	M	
CP1 ,2			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R37 ,38			RN14BK2C1471F	RN 1.47K F 1/6W		
R39 ,40			RD14NB2E151J	RD 150 J 1/4W		
R41 ,42			RD14NB2E222J	RD 2.2K J 1/4W		
R43 ,44			RD14NB2E181J	RD 180 J 1/4W		
R45 ,46			RD14NB2E151J	RD 150 J 1/4W		
R55 ,56			RN14BK2C1003F	RN 100K F 1/6W		
R57 -60			RD14NB2E4R7J	RD 4.7 J 1/4W		
R61 ,62			RS14KB3D100J	FL-PROOF RS 10 J 2W		
R63 ,64			RD14NB2E4R7J	RD 4.7 J 1/4W		
R65 ,66			RS14KB3D561J	FL-PROOF RS 560 J 2W		
R85			RD14NB2E221J	RD 220 J 1/4W		
R86			RD14NB2E101J	RD 100 J 1/4W		
R91 ,92			RD14NB2E4R7J	RD 4.7 J 1/4W		
R93 ,94			RS14KB3A100J	FL-PROOF RS 10 J 1W		
R111,112			RS14KB3A330J	FL-PROOF RS 33 J 1W		
R149,150			RS14KB3D181J	FL-PROOF RS 180 J 2W		
R181			R92-0173-05	RC 2.2M M 1/2W	KP	
R187,188			RD14NB2E221J	RD 220 J 1/4W		
R202			RS14KB3D121J	FL-PROOF RS 120 J 2W		
R204			RS14KB3D151J	FL-PROOF RS 150 J 2W		
△ R225,226			RD14NB2E100J	RD 10 J 1/4W		
R229			R92-0513-05	FUSE RESIST 10 G 1/4W		
R231			RS14KB3D390J	FL-PROOF RS 39 J 2W		
R236			RS14KB3D681J	FL-PROOF RS 680 J 2W		
VR1	2C	*	R29-9028-05	POTENTIOMETER(VOLUME CONTROL)		
VR2	2C		R10-5043-05	POTENTIOMETER(BALANCE)		
VR3	2C	*	R11-9022-05	POTENTIOMETER(N.B.CIRCUIT)		
VR4	2B	*	R10-5060-05	POTENTIOMETER(MIC MIXING)	MX	
△ K1			S76-0002-05	MAGNETIC RELAY(POWER)		
K2 -4			S76-0005-05	MAGNETIC RELAY(F,P,S)		
S1		*	S79-0006-05	SWITCH ASSY(85°C CUT FAN)		
S2		*	S79-0007-05	SWITCH ASSY(105°C CUT PROTECT)		
D1 -5			HSS104A	DIODE		
D1 -5			1SS131	DIODE		
D6			HZS4.7N(B)	ZENER DIODE		
D6			RD4.7ES(B)	ZENER DIODE		
D7 -9			HSS104A	DIODE		
D7 -9			1SS131	DIODE		
△ D10			D5SBA20F03	DIODE		
△ D10			RBV-602LFA	DIODE		
D11			HZS4.7N(B)	ZENER DIODE		
D11			RD4.7ES(B)	ZENER DIODE		
D12			HSS104A	DIODE		

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D12			1SS131	DIODE		
D13 ,14			HZS5.6N(B2)	ZENER DIODE		
D13 ,14			RD5.6ES(B2)	ZENER DIODE		
D15 -17			HSS104A	DIODE		
D15 -17			1SS131	DIODE		
D18			HZS4.7N(B)	ZENER DIODE		
D18			RD4.7ES(B)	ZENER DIODE		
D19			HZS16N(B2)	ZENER DIODE		
D19			RD16ES(B2)	ZENER DIODE		
D20			S5688B	DIODE		
D20			1SR139-100	DIODE		
D22 ,23			HSS104A	DIODE		
D22 ,23			1SS131	DIODE		
D24			HZS6.8N(B2)	ZENER DIODE		
D24			RD6.8ES(B2)	ZENER DIODE		
D25			HZS6.2N(B2)	ZENER DIODE		
D25			RD6.2ES(B2)	ZENER DIODE		
D26			HZS11N(B2)	ZENER DIODE		
D26			RD11ES(B2)	ZENER DIODE		
D27			HZS16N(B2)	ZENER DIODE		
D27			RD16ES(B2)	ZENER DIODE		
△ D29 -32			S5688B	DIODE		
△ D29 -32			1SR139-100	DIODE		
D33 -50			HSS104A	DIODE		
D33 -50			1SS131	DIODE		
D51 ,52			HSS104A	DIODE	MX	
D51 ,52			1SS131	DIODE	MX	
D53 -58			HSS104A	DIODE		
D53 -58			1SS131	DIODE		
IC1			NJM4565D-D	IC(OP AMP X2)		
IC2			TA8409S	IC(MOTOR CONTROL)		
IC4			NJM4565D-D	IC(OP AMP X2)	MX	
IC6			PST529C	IC(SYSTEM RESET)		
△ IC7			TA7815S	IC(VOLTAGE REGULATOR/ +15V)		
△ IC7			UPC7815AHF	IC(VOLTAGE REGULATOR/+15V)		
IC9 ,10		*	SI-18752LF	IC(AF POWER AMP/ 30W)		
Q1 ,2			2SC1845(F,E)	TRANSISTOR		
Q3 ,4			2SC2878(B)	TRANSISTOR		
Q5 -8			2SA992(F,E)	TRANSISTOR		
Q9 -12			2SC1845(F,E)	TRANSISTOR		
Q13 ,14			2SA992(F,E)	TRANSISTOR		
Q15 ,16			2SC4137(V,W)	TRANSISTOR		
△ Q17 ,18			2SD2340	TRANSISTOR		
△ Q19 ,20			2SB1531	TRANSISTOR		
Q21 ,22			2SC1845(F,E)	TRANSISTOR		
Q23			2SA1123(R,S)	TRANSISTOR		
Q24 ,25			2SC1845(F,E)	TRANSISTOR		
Q26 -28			2SC2003(L,K)	TRANSISTOR		
Q29			2SC2878(B)	TRANSISTOR		
Q30			2SA1048(Y,GR)	TRANSISTOR		
Q30			2SA1175(F,E)	TRANSISTOR		
Q30			2SA1309A(Q,R)	TRANSISTOR		
Q30			2SA933S(Q,R)	TRANSISTOR		
Q35 ,36			2SC2878(B)	TRANSISTOR		
Q37			2SA1048(Y,GR)	TRANSISTOR		

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Q37 Q37 Q37 Q38 Q38			2SA1175(F,E) 2SA1309A(Q,R) 2SA933S(Q,R) 2SC1740S(Q,R) 2SC2458(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q38 Q38 Q40 Q40 Q40			2SC2785(F,E) 2SC3311A(Q,R) DTC124ES RN1203 UN4212	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
Q52 Q53 Q60 Q61 Q62			2SC2003(L,K) 2SA954(L,K) 2SA1534A(R,S) 2SD2061(E,F,G) 2SC2003(L,K)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q63			2SA992(F,E)	TRANSISTOR		
<b>DISPLAY UNIT X14-362: JAPAN MADE X14-364: SINGAPORE MADE</b>						
D201, 202			B30-1291-05	LED		
C1 -4			CK45FF1H103Z	CERAMIC 0.010UF Z		
C5			CE04KW1C470M	ELECTRO 47UF 16WV		
C6 ,7			CK45FF1H103Z	CERAMIC 0.010UF Z		
C8			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C9			CC45FSL1H101J	CERAMIC 100PF J		
C10			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C11			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C12			CK45FF1H103Z	CERAMIC 0.010UF Z		
C13			CQ92FM1H153J	MYLAR 0.015UF J		
C14 ,15			CK45FF1H223Z	CERAMIC 0.022UF Z		
C16			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C17			CK45FF1H223Z	CERAMIC 0.022UF Z		
C18			CE04KW1V100M	ELECTRO 10UF 35WV		
C19			CK45FF1H223Z	CERAMIC 0.022UF Z		
C20			CE04KW1V100M	ELECTRO 10UF 35WV		
C21			C90-3230-05	ELECTRO 100UF 16WV		
C27 ,28			CQ92FM1H153J	MYLAR 0.015UF J	MX	
C27 ,28			CQ92FM1H223J	MYLAR 0.022UF J	KP	
C27 ,28			CQ92FM1H392J	MYLAR 3900PF J	TE	
C29 ,30			C90-3253-05	ELECTRO 1UF 50WV		
C41 ,42			CC45FCH1H220J	CERAMIC 22PF J		
C43 -45			CK45FB1H471K	CERAMIC 470PF K		
C46 ,47			CK45FF1H103Z	CERAMIC 0.010UF Z		
C48			CQ92FM1H273J	MYLAR 0.027UF J		
C49			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C50			CE04KW1C470M	ELECTRO 47UF 16WV		
C51			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C52			CE04KW1A470M	ELECTRO 47UF 10WV		
C55			CK45FF1H103Z	CERAMIC 0.010UF Z		
C56			CC45FSL1H220J	CERAMIC 22PF J		
C62 -64			C90-3253-05	ELECTRO 1UF 50WV		
C65			C90-3249-05	ELECTRO 0.22UF 50WV		
C66			C90-3244-05	ELECTRO 10UF 35WV		
C67 ,68			CC45FSL1H101J	CERAMIC 100PF J	KPMX	
C67 ,68			CC45FSL1H271J	CERAMIC 270PF J	TE	

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C69 C70 C71 C106 C107			CE04KW1V100M CC45FSL1H561J CQ92FM1H103J CE04KW1C470M CK45FF1H223Z	ELECTRØ 10UF 35WV CERAMIC 560PF J MYLAR 0.010UF J ELECTRØ 47UF 16WV CERAMIC 0.022UF Z	KPMX	
C107,108 C109,110 C111-114 C135,136 C170			CK45FF1H223Z C91-0085-05 CK45FF1H223Z CQ92FM1H682J CC45FSL1H101J	CERAMIC 0.022UF Z CERAMIC 0.022UF N CERAMIC 0.022UF Z MYLAR 6800PF J CERAMIC 100PF J	TE TE TE M TE	
C171 C201 C202 C203 C204,205			CC45FSL1H470J CC45FCH1H330J CC45FCH1H270J CE04DW1A101M C91-0769-05	CERAMIC 47PF J CERAMIC 33PF J CERAMIC 27PF J ELECTRØ 100UF 10WV CERAMIC 0.01UF K	TE	
C206 C209 C210-214 C215			C90-3240-05 C90-3253-05 C91-0769-05 C90-3210-05	ELECTRØ 2.2UF 35WV ELECTRØ 1UF 50WV CERAMIC 0.01UF K ELECTRØ 22UF 6.3WV		
J1 J1 J3	1D 1D 2B		E20-0321-05 E20-0476-05 E11-0234-05	LOCK TERMINAL BOARD(ANTENNA) LOCK TERMINAL BOARD(ANTENNA) PHONE JACK (PHONES)	TE KPMX	
CF1 ,2 CF1 ,2 CF3 L1 L2			L72-0531-05 L72-0536-05 L72-0096-05 L30-0488-05 L30-0439-25	CERAMIC FILTER CERAMIC FILTER CERAMIC FILTER AM IFT FM IFT<DISCRIMINATOR>	KPMX TE KP	
L2 L3 L5 L6 ,7 L8			L30-0494-05 L40-1021-14 L79-0125-05 L79-0790-05 L40-1091-17	FM IFT<DISCRIMINATOR> SMALL FIXED INDUCTOR(1.0mH,K) LC FILTER LC FILTER SMALL FIXED INDUCTOR(1UH)	MXTE TE TE TE	
L104 L104 L105 L106 X1			L39-0189-05 L39-0195-05 L39-0192-05 L40-1091-17 L77-1122-05	COMBINATION COIL COMBINATION COIL COMBINATION COIL SMALL FIXED INDUCTOR(1UH) CRYSTAL RESONATOR(7.2MHz)	KPMX TE TE	
X2 X201			L78-0208-05 L77-1176-05	RESONATOR (456kHz) CRYSTAL RESONATOR(4.194304MHz)		
CP201 CP202 CP203 R21 R37			R90-0855-05 R90-0482-05 R90-0824-05 RD14NB2E680J RD14GB2E101J	MULTI-COMP 100KX5 J MULTI-COMP 100KX4 J 1/6W MULTI-COMP 4.7KX4 RD 68 J 1/4W FL-PROOF RD 100 J 1/4W		
R53 R143 VR1 VR3 VR5			RS14KB3D101J RS14KB3D121J R12-3687-05 R12-3685-05 R12-6663-05	FL-PROOF RS 100 J 2W FL-PROOF RS 120 J 2W TRIMMING POT.(33K)<FM T-LEVEL> TRIMMING POT.(10K)<AM T-LEVEL> TRIMMING POT.(330K)<SEPA.>		
S1 -36 S37 S101	3B 1D 2D		S40-1064-05 S31-3010-05 S31-2132-05	TACT SWITCH(1-0 AI TIMER etc.) SLIDE SWITCH(110-120/220-240V) SLIDE SWITCH(DE-EM.,CH.SPACE)	M M	
D1			HSS104	DIODE	TE	

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D1 D3 D3 D109-116 D109-116			1SS133 H2S5.1N(B2) RD5.1ES(B2) HSS104 1SS133	DIODE ZENER DIODE ZENER DIODE DIODE DIODE	TE   TE TE	
D111,112 D111,112 D120 D120 D122			HSS104 1SS133 H2S3.3N(B2) RD3.3ES(B2) HSS104	DIODE DIODE ZENER DIODE ZENER DIODE DIODE	KPMX KPMX   TE	
D122 D211,212 D211,212 D213 D213			1SS133 HSS104 1SS133 HSS104 1SS133	DIODE DIODE DIODE DIODE DIODE	TE TE  XTE XTE	
D214 D214 D215 D215 D216			HSS104 1SS133 HSS104 1SS133 HSS104	DIODE DIODE DIODE DIODE DIODE	MXTE MXTE TE TE M	
D216 D217-227 D217-227 D231-234 D231-234			1SS133 HSS104 1SS133 HSS104 1SS133	DIODE DIODE DIODE DIODE DIODE	M     	
ED201 IC1 IC2 IC3 IC201	3B		FIP11AM7R LA1265 LA3401 LM7001 CXP50116-397Q	INDICATOR TUBE IC(FM/AM TUNER) IC(FM MPX) IC(PLL FREQUENCY SYNTHESIZER) IC(4BIT MICROPROCESSOR)		
IC201 IC202 Q1 Q2 Q3		*	CXP50116-397QA CX-7991 2SC1923(R,0) 2SC1845(F,E) 2SC1740S(Q,R)	IC(4BIT MICROPROCESSOR) IC(SERIAL/PARALLEL CONVERTER) TRANSISTOR TRANSISTOR TRANSISTOR		
Q3 Q3 Q3 Q4 Q4			2SC2458(Y,GR) 2SC2785(F,E) 2SC3311A(Q,R) 2SC1740S(Q,R) 2SC2458(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	TE TE	
Q4 Q4 Q5 Q5 Q7			2SC2785(F,E) 2SC3311A(Q,R) 2SK163(L,M) 2SK364(GR,BL) 2SC2458(Y,GR)	TRANSISTOR TRANSISTOR FET FET TRANSISTOR	TE TE TE TE	
Q7 Q102 Q102 Q102 Q102			2SC3311A(Q,R) 2SA1048(Y,GR) 2SA1175(F,E) 2SA1309A(Q,R) 2SA933S(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q103 Q103 Q103 Q103 Q104			2SA1048(Y,GR) 2SA1175(F,E) 2SA1309A(Q,R) 2SA933S(Q,R) 2SA1048(Y,GR)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	TE TE TE TE	

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Q104			2SA1175(F,E)	TRANSISTOR		
Q104			2SA1309A(Q,R)	TRANSISTOR		
Q104			2SA933S(Q,R)	TRANSISTOR		
Q105,106			2SC1740S(Q,R)	TRANSISTOR	TE	
Q105,106			2SC2458(Y,GR)	TRANSISTOR	TE	
Q105,106			2SC2785(F,E)	TRANSISTOR	TE	
Q105,106			2SC3311A(Q,R)	TRANSISTOR	TE	
Q107,108			2SC1740S(Q,R)	TRANSISTOR	M	
Q107,108			2SC2458(Y,GR)	TRANSISTOR	M	
Q107,108			2SC2785(F,E)	TRANSISTOR	M	
Q107,108			2SC3311A(Q,R)	TRANSISTOR	M	
Q109,110			2SD1302(S,T)	TRANSISTOR		
Q111			2SA1048(Y,GR)	TRANSISTOR		
Q111			2SA1175(F,E)	TRANSISTOR		
Q111			2SA1309A(Q,R)	TRANSISTOR		
Q111			2SA933S(Q,R)	TRANSISTOR		
Q201,202		*	2SC4038(Q,R)	TRANSISTOR	M	
Q203		*	2SA1561(Q,R)	TRANSISTOR		
A1	3B		W02-1046-05	ELECTRIC CIRCUIT MODULE		
DT1	2D		W02-1041-15	FM FRONT-END ASSY	TE	
DT1	2D		W02-1042-15	FM FRONT-END ASSY	KPMX	

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## Specifications

## Receiver unit (A-A7)

## Amplifier section

## Rated power output

## For U.S.A. and Canada

30 watts per channel minimum RMS, both channels driven, at 4 Ω from 40 Hz to 20,000 Hz with no more than 0.09 % total harmonic distortion

## Presence

1 kHz at 8 Ω ..... 18 W + 18 W

## For other countries

(EIAJ 4 Ω) ..... 45 W + 45 W

(IHF'66) From 40 Hz to 20 kHz, 0.09 % T.H.D.

at 4 Ω ..... 35 W + 35 W

(IEC / NF) From 63 Hz to 12,500 Hz, 0.7 % T.H.D.

at 4 Ω ..... 35 W + 35 W

## Presence

1 kHz at 8 Ω ..... 25 W + 25 W (EIAJ)

## Total harmonic distortion

..... 0.09 % (40 Hz ~ 20 kHz, 1 / 2 rated power, 4 Ω)

..... 0.06 % (1 kHz, 1 / 2 rated power, 4 Ω)

## Signal to noise ratio

LD / AUX, VIDEO, MD / DAT

..... 100 dB (IHF'66) / 80 dB (IHF'78)

## Input sensitivity / Impedance

LD / AUX, VIDEO, MD / DAT ..... 150 mV / 47 kΩ

MIC ..... 1.2 mV / 47 kΩ

(Except for U.S.A and Canada)

N.B. circuit (-30 dB Volume level) (Max) ..... +15 dB (at 60 Hz)

## Output level / Impedance

SUPER WOOFER OUT ..... 1.5 V / 3.6 kΩ

## VIDEO section

## Input level impedance

VIDEO (composite) ..... 1 Vp-p / 75 Ω

Input (LD / AUX, VIDEO IN)

## Output level impedance

VIDEO (composite) ..... 1 Vp-p / 75 Ω

Output (MONITOR, VIDEO OUT)

## FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz

Sensitivity (MONO at 75 Ω) ..... 1.2 μV / 12.8 dBf

Total harmonic distortion (at 1 kHz)

MONO ..... 0.5 % (65 dBf input)

STEREO ..... 0.6 % (65 dBf input)

## Signal to noise ratio at 1 kHz

MONO ..... 80 dB (85 dBf input)

STEREO ..... 74 dB (85 dBf input)

Selectivity (± 400 kHz) ..... 50 dB

## Stereo separation

1 kHz ..... 40 dB

Frequency response ..... 30 Hz ~ 15 kHz, + 0.5 dB, - 3 dB

## AM Tuner section

## Tuning frequency range

9 kHz step ..... 531 kHz ~ 1,602 kHz

10 kHz step ..... 530 kHz ~ 1,610 kHz

or 530 kHz ~ 1,700 kHz

(for U.S.A. and Canada)

Usable sensitivity ..... 10 μV / (500 μV / m)

## Signal to noise ratio

(at 30 % mod. 1 mV input) ..... 48 dB

## [General]

Power consumption ..... 170 W

Dimensions ..... W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 332 mm (13-1 / 16")

Weight (net) ..... 6.5 kg (14.3 lb)

# SPECIFICATIONS

## Receiver unit (A-A7L)

### Amplifier section

#### Rated power output

(IEC / NF) From 63 Hz to 12,500 Hz, 0.7 % T.H.D.

at 4  $\Omega$  ..... 35 W + 35 W

(DIN) 1 kHz at 4  $\Omega$  ..... 35 W + 35 W

#### Presence

1 kHz at 8  $\Omega$  ..... 25 W + 25 W

#### Total harmonic distortion

..... 0.09 % (40 Hz ~ 20 kHz, 1 / 2 rated power, 4  $\Omega$ )

..... 0.06 % (1 kHz, 1 / 2 rated power, 4  $\Omega$ )

#### Signal to noise ratio

LD / AUX, VIDEO, MD / DAT

..... 100 dB (IHF'66) / 80 dB (IHF'78)

#### Input sensitivity / Impedance

LD / AUX, VIDEO, MD / DAT ..... 150 mV / 47 k $\Omega$

N.B. circuit (- 30 dB Volume level) (Max) ..... + 15 dB

(at 60 Hz)

#### Output level / Impedance

SUPER WOOFER OUT ..... 1.5 V / 3.6 k $\Omega$

### VIDEO section

#### Input level impedance

VIDEO (composite) ..... 1 Vp-p / 75  $\Omega$

Input (LD / AUX, VIDEO IN)

#### Output level impedance

VIDEO (composite) ..... 1 Vp-p / 75  $\Omega$

Output (MONITOR, VIDEO OUT)

### FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz

Sensitivity (DIN at 75  $\Omega$ )

MONO ..... 0.7  $\mu$ V / 8.2 dBf

Total harmonic distortion (DIN at 1 kHz)

MONO ..... 0.6 % (65.2 dBf input)

STEREO ..... 0.8 % (65.2 dBf input)

Signal to noise ratio (DIN weighted at 1 kHz)

MONO ..... 70 dB (65.2 dBf input)

STEREO ..... 64 dB (65.2 dBf input)

Selectivity (DIN  $\pm$  300 kHz) ..... 60 dB

Stereo separation (DIN)

1 kHz ..... 40 dB

Frequency response ..... 30 Hz ~ 15 kHz, + 0.5 dB, - 3 dB

### MW Tuner section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz

Usable sensitivity ..... 10  $\mu$ V / (500  $\mu$ V / m)

Signal to noise ratio

(at 30 % mod. 1 mV input) ..... 48 dB

### LW Tuner section

Tuning frequency range ..... 153 kHz ~ 281 kHz

Usable sensitivity ..... 22  $\mu$ V

Signal to noise ratio

(at 30 % mod. 1 mV input) ..... 45 dB

### [General]

Power consumption ..... 170 W

Dimensions ..... W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 332 mm (13-1 / 16")

Weight (net) ..... 6.5 kg (14.3 lb)

## KENWOOD CORPORATION

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KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

KENWOOD strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

### Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.